

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/006,583

REMARKS

Applicants thank the Examiner for acknowledging their claim to priority under 35 U.S.C. § 119, and receipt of a certified copy of the priority document.

Claims 1-14 are all the claims pending in the application.

Claims 1, 2, 4, 8, and 10 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Applicants have amended claims 1, 2, 4 and 8 to satisfy the requirements of 35 U.S.C. 112, second paragraph. All amendments are believed to be self-explanatory, but the following additional remarks are offered.

Applicants disagree with the Examiner's statement that the recitation of "when ... varies" in claim 1 is unclear because it is not clearly established the comparison implied by a variation of data. The third subparagraph of the claim describes a "controlling" step as involving the detection of possible data variations in a peripheral unit. In any event, the last paragraph of claim 1 has now been amended to refer to data "variation."

Applicants disagree with the Examiner that the recitation in claim 10 is unclear because the relationship between "receiving/transmitting and processing signals" and the steps of the method are not clearly established. Claim 10 recites a specific example of the type of device in which the invention of claim 1 is used. There is no need to have the device characteristics recited in claim 10 connected to the method steps of claim 1 for the claim to be clear in scope.

Claims 1-14 stand rejected under 35 U.S.C. 102(e) as being anticipated by USP 6,728,821 to James et al. Claims 1-9 and 11-14 stand rejected under 35 U.S.C. 102(e) as being

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/006,583

anticipated by USP 6,728,244 to Takabatake (mistakenly typed as USP 8,728,244 in the Office Action). Applicants respectfully traverse these rejections, and request reconsideration and allowance of the claims in view of the following arguments.

James describes a method of adjusting the bandwidth allocated for isochronous data traffic on a digital bus system interconnecting audio/video (A/V) equipment. As shown in Fig. 1 of James, a bus bridge 170 is interconnected to A/V equipment 120-160 by a bus 180.

Each node on the bus system contains an audio/video control (AV/C) device and bus bridges serve to connect buses of similar or different types. As shown in Fig. 7 of James, isochronous data connections have one talker 802 and one or more listeners 804. The talker broadcasts audio, video or any other data format. Both the talker and listener are nodes on the digital bus system. Each listener has an associated controller, e.g., a controller 806 in Fig. 7, that sets up the isochronous connection between the talker 802 and the listener 804. An isochronous resource manager (IRM), e.g., IRM 825 shown in Fig. 7, senses a bandwidth change request from the talker, and instigates a bandwidth adjustment associated with the bandwidth change request to one or more bus bridge portals.

Independent claims 1 and 11 of the present application recite two or more control units of *a control apparatus*. The Examiner has asserted that James teaches the control units, referring to col. 4, lines 33-49 of James. The recited part describes a topology 100, including various A/V devices connected via the bus 180 to the bus bridge 170. Although each of the A/V devices may be associated with a controller, nothing in James indicates that such controllers together

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/006,583

constitute a control apparatus. Thus, James fails to teach or suggest the control apparatus recited in claims of the present application.

Independent claims 1 and 11 of the present application also recite an electronic device comprising two or more peripheral units, and each control unit controlling at least one peripheral unit of the device. The Examiner has asserted the James teaches the device, referring to col. 9, lines 36-40 of James. The recited part talks about transmission of a message from a controller 1006 to a listener 1024 to disconnect or stop listening. However, the listener is a node on the bus system, and includes an A/V equipment. Although the James system may include multiple listeners, they are separate A/V equipment. James does not teach or suggest that the control unit controls a peripheral unit of an A/V equipment, or several A/V equipment forms a device. Thus, James fails to teach or suggest the device recited in claims of the present application.

Independent claims 1 and 11 of the present application recite control units which submit information concerning data consumed by other control units. The Examiner has asserted that James teaches this feature, referring to col. 8, lines 59-65 of James. The cited part discusses exchange of messages between a talker 902 and a listener's controller 906 when a change in the bandwidth allocated for isochronous data traffic is requested. However, the listener's controller only sends connect messages to the talker and the listener, to establish an isochronous connection therebetween; or disconnect messages to the talker and the listener, to terminate such connection. Applicants could not find anything in James indicating that a controller sends information about data consumed by other controllers. If the Examiner insists that James teaches this feature,

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/006,583

Applicants request the Examiner to provide more information. For now, Applicants respectfully submit that James fails to teach the recited control unit.

Thus, James fails to teach at least three features recited in independent claims 1 and 11 of the present application. Accordingly, Applicants respectfully submit that claims 1 and 11 and their dependent claims 2-10, 13-14 and 12 are patentable over James.

Takabatake provides a communication node capable of enabling interworking of a network in which data transfer is based on a combination of request and response, such as IEEE 1394, and a network in which data transfer is not based on a combination of request and response, such as IEEE 802.11.

As shown in Fig. 3 of Takabatake, IEEE 1394 nodes 101 and 102 are connected to radio terminals 121 and 122 of an IEEE 802.11 network 20 through a base station node 110. The IEEE 1394 node 101 has a Sub Unit A1 and a Sub Unit A2, and the IEEE 802.11 radio terminal 121 has a Sub Unit X1 and a Sub Unit X2. As shown in Fig. 6 of Takabatake, the IEEE 1394 node 101 generates an AV/C command to the Sub Unit X1 within the IEEE 802.11 radio terminal 121 at step (2), and transfers an FCP frame containing the AV/C command to the base station node 110. The base station node 110 ascertains the destination radio terminal at step (5) and transfers the AV/C command to the IEEE 802.11 radio terminal 121 at step (6). The IEEE 802.11 radio terminal 121 executes the processing corresponding to the AV/C command at step (8), and generates an AV/C response for notifying the processing result of the executed AV/C command and transfers an FCP frame containing the AV/C response to the base station node

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/006,583

110. The base station node 110 ascertains the IEEE 1394 node 101 at step (10) and transfers the received AV/C response to the IEEE 1394 node 101 at step (11).

The Examiner has asserted that Takabatake teaches controlling, through each control unit, at least one peripheral unit of the device, referring to col. 9, lines 36-40 of Takabatake. It appears that, in the Examiner's opinion, the IEEE 1394 node 101 in Takabatake corresponds to the recited control unit, and the IEEE 802.11 radio terminal 121 in Takabatake corresponds to the recited peripheral unit.

The recited control unit submits information concerning data consumed by other control units and data provided by the peripheral units controlled by said control units, to a master controller. However, as discussed above, the IEEE 1394 node 101 in Takabatake only sends an FCP frame containing an AV/C command to the IEEE 802.11 radio terminal 121 via the base station node 110. There is nothing in Takabatake indicating that the IEEE 1394 node 101 outputs information concerning data consumed by other control units. Neither does Takabatake teach or suggest outputting data provided by a peripheral unit, i.e., an IEEE 802.11 radio terminal.

In addition, in Takabatake, the IEEE 1394 node 101 only sends an AV/C command to the IEEE 802.11 radio terminal node 121 and received an AV/C response therefrom. Takabatake does not teach or suggest detecting possible data variations in the IEEE 802.11 radio terminal node 121 by the IEEE 1394 node 101. The node 101 and the radio terminal 121 in Takabatake belong to an IEEE 1394 network and an IEEE 802.11 network respectfully, and communicate via a base station node 110, in which a packet conversion processing unit 1102 executes a packet

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Appln. No. 10/006,583

conversion processing between the IEEE 802.11 network and the IEEE 1394 network (Takabatake, Fig. 10). It is not clear from Takabatake how the IEEE 1394 node 101, operating according to one standard, detects data variations in the IEEE 802.11 radio terminal, operating according to another standard.

The Examiner has asserted that Takabatake teaches sending a message whenever at least one of the data provided by the peripheral units varies, referring to col. 10, lines 52-54 of Takabatake. However, the cited part talks about the IEEE 1394 node 101 sends an acknowledgement upon receiving of an AV/C response from the IEEE 802.11 radio terminal, instead of data variation from the IEEE 802.11 radio terminal.

Thus, Takabatake fails to teach or suggest the recited control units.

The Examiner has asserted that Takabatake teaches the recited master controller, referring to col. 9, lines 24-25 of Takabatake. However, that sentence does not mention any device other than the IEEE 1394 node and the IEEE 802.11 radio terminal. It is not clear that, in the Examiner's opinion, which part in Takabatake teaches or suggests the recited master controller.

Thus, Applicant respectfully submits that claims 1-9 are patentable over Takabatake. Claims 11-14 are patentable for the same reasons.

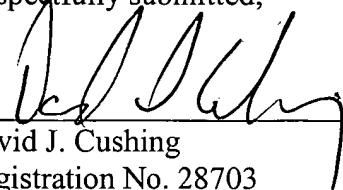
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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PATENT APPLICATION

AMENDMENT UNDER 37 C.F.R. § 1.111
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